

IN THE SPECIFICATION

Please replace the paragraph at page 1, prenumbered lines 6-24, with the following rewritten paragraph:

The present invention relates to an apparatus and a method for receiving digital broadcast signal, which receive digital satellite broadcast signal via an antenna. ~~More specifically, it relates to an apparatus and a method for receiving digital broadcast signal in which a received signal sent from the antenna is orthogonally detected to a baseband signal, an average value of amplitude in radial direction of signal points of phase mapping of the obtained baseband signal is measured to calculate a carrier/noise ratio for the received signal, an average value of amplitude in circumferential direction of the signal points of phase mapping of the baseband signal is measured to calculate an amount of phase noise of the received signal, a bit error rate of transport stream that is given by demodulating the baseband signal is measured, a factor in deterioration for receiving characteristics of the antenna is determined based on these results, and a desired measure mode is set based on this determination result, thereby allowing the factor in deterioration for receiving characteristics of the antenna to be automatically determined and deterioration for receiving characteristics based on phase noise of local oscillator in a frequency converter accompanied with the antenna and parasitic oscillation thereof to be automatically improved.~~

Please replace the paragraph at page 5, prenumbered lines 1-19, with the following rewritten paragraph:

An apparatus for receiving a digital broadcast signal relative to the invention is an apparatus for receiving a digital broadcast signal that is available to receive a digital satellite broadcast signal via an antenna comprising detecting ~~means~~ circuit for orthogonally detecting a received signal sent from the antenna to a baseband signal, carrier/noise (C/N)-value-

calculating ~~means~~ circuit for measuring an average value of amplitude in radial direction of signal points of phase mapping of the baseband signal obtained by the detecting ~~means~~ circuit to calculate a carrier/noise ratio for the received signal, phase-noise-amount-calculating ~~means~~ circuit for measuring an average value of amplitude in circumferential direction of signal points of the phase mapping of the baseband signal to calculate an amount of phase noise of the received signal, bit-error-rate-measuring ~~means~~ circuit for measuring a bit-error rate of transport stream that is given by demodulating the baseband signal, determining ~~means~~ circuit for determining a factor in deterioration for receiving characteristics of the antenna based on results of the C/N-value-calculating ~~means~~ circuit, the phase-noise-amount-calculating ~~means~~ circuit, and the bit-error-rate-measuring ~~means~~ circuit, and measure-mode-setting ~~means~~ circuit for setting a desired measure mode based on the determination result of the determining ~~means~~ circuit.

Please replace the paragraph at page 6, prenumbered line 17, to page 7, prenumbered line 4, with the following rewritten paragraph:

According to the present invention, the C/N-value-calculating ~~means~~ circuit, the phase-noise-amount-calculating ~~means~~ circuit, and the bit-error-rate-measuring ~~means~~ circuit are provided; when receiving the signal, a received signal sent from the antenna is orthogonally detected to a baseband signal; an average value of amplitude in radial direction of signal points of phase mapping of the obtained baseband signal is then measured to calculate a C/N value for the received signal; an average value of amplitude in circumferential direction of signal points of the phase mapping of the baseband signal is measured to calculate an amount of phase noise of the received signal; a bit-error rate of transport stream that is given by demodulating the baseband signal is then measured; a factor in deterioration for receiving characteristics of the antenna is determined based on these

results; and a desired measure mode is set based on the determination result thereof. This allows a factor in deterioration for receiving characteristics of the antenna to be automatically determined and the deterioration for receiving characteristics due to phase noise of local oscillator in a frequency converter accompanied with the antenna and parasitic oscillation thereof to be automatically improved.

Please replace the paragraph at page 8, prenumbered lines 17-24, with the following rewritten paragraph:

The demodulation circuit 12 also has carrier/noise (C/N)-value-calculating ~~means~~ circuit 12A for measuring an average value of amplitude in radial direction of signal points of phase mapping of the baseband signal given by the tuner 11 to calculate a CN value for the received signal and phase-noise-amount-calculating ~~means~~ circuit 12B for measuring an average value of amplitude in circumferential direction of signal points of the phase mapping of the baseband signal to calculate an amount of phase noise of the received signal.

Please replace the paragraph at page 9, prenumbered lines 1-3, with the following rewritten paragraph:

The error-correction circuit 13 also includes bit-error-rate-measuring ~~means~~ circuit 13A for measuring a bit-error rate of the transport stream that is given by demodulating the baseband signal.

Please replace the paragraph at page 9, prenumbered lines 8-12, with the following rewritten paragraph:

The MPEG decoder 16 decodes the signals for contents (video and audio signals) that are encoded in MPEG scheme. The video and audio signals that are obtained by the MPEG

decoder 16 are respectively supplied to a video output terminal [[18]] 20 and an audio output terminal 19 by which an image due to the video signal is displayed on a screen in a monitor device.

Please replace the paragraph at page 9, prenumbered lines 18-24, with the following rewritten paragraph:

The microcomputer 17 serves as determining ~~means~~ circuit for determining a factor in deterioration for performance of the antenna 1 based on calculation results of the C/N-value-calculating ~~means~~ circuit 12A and the phase-noise-amount-calculating ~~means~~ circuit 12B, and the measured result of the bit-error-rate-measuring ~~means~~ circuit 13A, and as measure-mode-setting ~~means~~ circuit for setting a desired measure mode based on the determination result of the determining ~~means~~ circuit.

Please replace the paragraph at page 10, prenumbered lines 15-21, with the following rewritten paragraph:

When thus receiving the signal, as described above, signal points of the baseband signal spread as shown in FIG. 3, so that the C/N-value-calculating ~~means~~ circuit 12A provided within the demodulation circuit 12 can measure an average value of amplitude in radial direction of the signal points to obtain the C/N value. (It is assumed that a register indicating this value of the demodulation circuit 12 (demodulation IC) is referred to as CN register and that the larger this value, the larger the C/N value)

Please replace the paragraph at page 15, prenumbered line 24, to page 16, prenumbered line 7, with the following rewritten paragraph:

Thus, according to the embodiment, the apparatus 100 for receiving the digital broadcast signal has the C/N-value-calculating ~~means~~ circuit 12A, the phase-noise-amount-calculating ~~means~~ circuit 12B, and the bit-error-rate-measuring ~~means~~ circuit 13A; when receiving the signal, a received signal sent from the antenna is orthogonally detected to a baseband signal; an average value of amplitude in radial direction of signal points of phase mapping of the obtained baseband signal is then measured to calculate a C/N value for the received signal; an average value of amplitude in circumferential direction of signal points of the phase mapping of the baseband signal is measured to calculate an amount of phase noise of the received signal; a bit-error rate of transport stream that is given by demodulating the baseband signal is then measured; a factor in deterioration for performance of the antenna 1 is determined based on these results; and a desired measure mode is set based on the determination result thereof.

Please replace the paragraph at page 16, prenumbered line 27, to page 17, prenumbered line 2, with the following rewritten paragraph:

According to the invention, the apparatus for receiving the digital broadcast signal has the C/N-value-calculating ~~means~~ circuit, the phase-noise-amount-calculating ~~means~~ circuit, and the bit-error-rate-measuring ~~means~~ circuit; when receiving the signal, a received signal sent from the antenna is orthogonally detected to a baseband signal; an average value of amplitude in radial direction of signal points of phase mapping of the obtained baseband signal is then measured to calculate a C/N value for the received signal; an average value of amplitude in circumferential direction of signal points of the phase mapping of the baseband signal is measured to calculate an amount of phase noise of the received signal; a bit-error

rate of transport stream that is given by demodulating the baseband signal is then measured; a factor in deterioration for receiving characteristics of the antenna 1 is determined based on these results; and a desired measure mode is set based on the determination result thereof, by which a factor in deterioration for receiving characteristics of the antenna 1 can be automatically determined and the deterioration for receiving characteristics due to phase noise of local oscillator in a frequency converter accompanied with the antenna and the parasitic oscillation thereof can be automatically improved.